

WHAT IS CLAIMED IS:

1. A composition for removing a biofilm from a surface, which does not produce or comprise a peroxide, a terpene or sodium hypochlorite, which comprises an effective dislodging amount of a detergent and an effective dislodging
5 amount of a salt or of an acid which forms a salt at a working pH value, or both, said salt or acid being different from said detergent and said salt or acid when combined to the detergent is capable of displacing divalent cations and dismantling the structure of said biofilm, with the proviso that said composition is neither a mixture achieving a final concentration of SDS 1%-2% and mandelic and lactic
10 acids, each at an individual concentration of 1% or in a combined concentration of 2%, nor of SDS 0.25%, sodium benzoate 2% and sodium salicylate 0.2%, all percentages representing weight per volume concentrations.
2. A composition as defined in claim 1, further comprising an effective amount of a bactericide.
- 15 3. A composition as defined in claim 1, wherein said detergent is SDS achieving a final concentration of at least 0.1%.
4. A composition as defined in claim 2, wherein said detergent is SDS achieving a final concentration of at least 0.1%.
5. A composition as defined in claim 1, wherein said acid is mandelic acid
20 achieving a final concentration of at least 0.1%.
6. A composition as defined in claim 2, wherein said acid is mandelic acid achieving a final concentration of at least 0.1 %.
7. A composition as defined in claim 1, wherein said salt or acid is an EDTA salt or acid achieving a final concentration of at least 0.25 %.
- 25 8. A composition as defined in claim 2, wherein said salt or acid is an EDTA salt or acid achieving a final concentration of at least 0.25 %.

9. A composition as defined in claim 1, wherein said salt is sodium mandelate formed from mandelic acid achieving a final concentration range of at least 0.1 % at a working pH value adjusted to 5.
10. A composition as defined in claim 2, wherein said salt is sodium mandelate
5 formed from mandelic acid achieving a final concentration range of at least 0.1 % at a working pH value adjusted to 5.
11. A composition as defined in claim 1, wherein said acid is selected from the group consisting of mandelic, 2-ketoglutaric, acetic, iminodiacetic, mucic, glycolic, fumaric, lactic, aspartic, phosphoric, pyruvic, chloroacetic, oxalic, citric, oxamic,
10 malic, dichloroacetic, phenylacetic, benzylic, maleic, mandelic, succinic, chloromandelic, glutamic, nitrilotriacetic, boric, adipic, formic, glucuronic, salicylic, benzoic, benzoyl formic, phthalic, ketopimelic acids, alanine, serine, tryptophane, tyrosine, bicine, tricine and glycine.
12. A composition as defined in claim 2, wherein said acid is selected from the
15 group consisting of mandelic, 2-ketoglutaric, acetic, iminodiacetic, mucic, glycolic, fumaric, lactic, aspartic, phosphoric, pyruvic, chloroacetic, oxalic, citric, oxamic, malic, dichloroacetic, phenylacetic, benzylic, maleic, mandelic, succinic, chloromandelic, glutamic, nitrilotriacetic, boric, adipic, formic, glucuronic, salicylic, benzoic, benzoyl formic, phthalic, ketopimelic acids, alanine, serine, tryptophane,
20 tyrosine, bicine, tricine and glycine.
13. A composition as defined in claim 2, wherein said bactericide is hydrogen peroxide or any bactericide having a bactericidal potency and host spectrum substantially equivalent thereto.
14. A composition as defined in claim 2, wherein said bactericide is a phenol, or
25 is the same component as the acid mandelic acid, or is the same component as the detergent cetylpyridinium chloride.
15. A composition as defined in claim 14, wherein the phenol, mandelic acid, or cetylpyridinium chloride achieving a final concentration of at least 0.1%.
16. A composition as defined in claim 1, which further comprises a biofilm
30 dislodging enhancer agent.

17. A composition as defined in claim 2, which further comprises a biofilm dislodging enhancer agent.

18. A composition as defined in claim 16, wherein said enhancer agent is a calcium chelator.

5 19. A composition as defined in claim 17, wherein said enhancer agent is a calcium chelator.

20. A composition as defined in claim 18, wherein said calcium chelator is the same component as the acid EDTA, which is used as the acid or as a salt of EDTA achieving a final concentration of at least 0.25 %.

10 21. A composition as defined in claim 19, wherein said calcium chelator is the same component as the acid EDTA, which is used as the acid or as a salt of EDTA achieving a final concentration of at least 0.25 %.

22. A composition as defined in claim 16 wherein said enhancer agent is a chaotropic agent.

15 23. A composition as defined in claim 17 wherein said enhancer agent is a chaotropic agent.

24. A composition as defined in claim 22, wherein said chaotropic agent is the same component as the detergent SDS achieving a final concentration of at least 0.1 %.

20 25. A composition as defined in claim 23, wherein said chaotropic agent is the same component as the detergent SDS achieving a final concentration of at least 0.1 %.

25 26. A composition for removing a biofilm from a surface, which does not produce or comprise a peroxide, a terpene or sodium hypochlorite, which comprises an effective dislodging amount of a detergent and an effective dislodging amount of a salt or of an acid which forms a salt at a working pH value; said detergent being selected from the group consisting of sodium dodecyl sulfate, sodium n-decyl diphenylether disulfonate, sodium cocoyl sarcosinate,

- polyoxyethylene sorbitan monolaureate and cetylpyridinium chloride; said acid being selected from the group consisting of mandelic, 2-ketoglutaric, acetic, iminodiacetic, mucic, glycolic, fumaric, lactic, aspartic, phosphoric, pyruvic, chloroacetic, oxalic, citric, oxamic, malic, dichloroacetic, phenylacetic, benzylic, maleic, succinic, chloromandelic, glutamic, nitrilotriacetic, boric, adipic, formic, glucuronic, salicylic, benzoic, benzoyl formic, phthalic, ketopimelic, ethylenediamine tetraacetic, N-(hydroxyethyl) ethylenediamine triacetic acids, alanine, serine, tryptophan, tyrosine, bicine, tricine and glycine, with the proviso that said composition is neither a mixture achieving a final concentration of SDS 1% - 2% and mandelic and lactic acids, each at an individual concentration of 1% or in a combined concentration of 2%, nor of SDS 0.25%, sodium benzoate 2% and sodium salicylate 0.2%, all percentages representing final weight per volume concentrations.
27. A composition as defined in claim 26, further comprising an effective amount of a bactericide.
28. A composition for removing a biofilm from a surface, which does not produce or comprise a peroxide, a terpene or sodium hypochlorite, which achieves a final concentration of at least 0.1% but less than 1% SDS, 0.1% - 1% acid, and at least 0.25% but less than 1% EDTA, said acid being selected from the group consisting at least of 2-ketoglutaric, mandelic, iminodiacetic, mucic, glycolic, fumaric, aspartic, phosphoric, pyruvic, chloroacetic acids and alanine.
29. A composition as defined in claim 28, further comprising an effective amount of a bactericide.
30. A composition for removing a biofilm from a surface, which does not produce or comprise a peroxide, a terpene or sodium hypochlorite, which achieves a final concentration of at least 0.1% SDS, at least 0.1% acid, and at least 0.25% EDTA, said acid being selected from the group consisting at least of 2-ketoglutaric, iminodiacetic, mucic, glycolic, fumaric, aspartic, phosphoric, pyruvic, chloroacetic acids and alanine.
31. A composition as defined in claim 30, further comprising an effective amount of a bactericide.

32. A composition as defined in claim 31, wherein said bactericide is a phenol at a final concentration of at least 0.1%, mandelic acid 0.1% or cetylpyridinium chloride 0.1% - 0.5%.

5 33. A composition as defined in claim 26, which comprises an effective dislodging amount of cetylpyridinium chloride (CPC), of a divalent cation chelator, and of a salt-forming acid or of an acid, said acid being selected from the group consisting of mandelic, 2-ketoglutaric, iminodiacetic, mucic, glycolic, fumaric, lactic, aspartic, phosphoric, pyruvic, chloroacetic acids and alanine.

10 34. A composition as defined in claim 33, which achieves a final concentration of 0.5% CPC, EDTA 0.25% and 0.1-1% of said acid.